BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Construction of RCC Drain and culverts balance main and cross roads of Ambhabhavani layout in ward no-03 of Yelahanka Satellite Town Sub Division

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No-143, I.No-19.1)								
	For RCC Drain	Cum							
	Ambhabhavani Layout								
	1st main, LHS		1	71.00	1.10	0.90	70.29		
	1st main, RHS		1	106.00	1.10	0.90	104.94		
	8th cross, LHS		1	189.00	1.10	0.90	187.11		
	8th cross, RHS		1	180.00	1.10	0.90	178.20		
	8th cross to 1st main		2	27.00	1.10	0.90	53.46		
	Cross Rd		1	160.00	1.10	0.90	158.40		
	Culvert		8	6.30	1.50	0.90	68.04		
							820.44	215.28	**176624.32**
	Basic Rate Rs.=	130.00							
	Add 6% A.W Rs. =	7.80							
	Sub Total =	137.80							
	8Km Lead, Loading and Unloading =(2*1.28*8)+57	77.48							
	Total Rate Rs. =	**215.28**							
2	KSRRB M2100-10. Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. (P.No-222,I No-27.18)								
	For Drain	Cum							
	Ambhabhavani Layout								
	1st main, LHS		1	71.00	1.10	0.15	11.72		
	1st main, RHS		1	106.00	1.10	0.15	17.49		
	8th cross, LHS		1	189.00	1.10	0.15	31.19		
	8th cross, RHS		1	180.00	1.10	0.15	29.70		
	8th cross to 1st main		2	27.00	1.10	0.15	8.91		
	Cross Rd		1	160.00	1.10	0.15	26.40		
	Culvert		8	6.30	1.50	0.15	11.34		
	For Kerb stones								
	1st main, LHS		1	271.00	0.20	0.10	5.42		
	1st main, RHS		1	306.00	0.20	0.10	6.12		
							148.28	5421.90	**803959.33**
	Basic Rate Rs.=	5115.00							
	Add 6% A.W Rs. =	306.90							
	Total Rate Rs. =	**5421.90**							

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
3	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. With 20mm and sown size granite metal course aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compcted for walls and bottom including centring shuttering cost of material HOM of machinary curing etc., complete execluding cost of steel as per MORTH specification no. 1500, 1700, 2200 including cost of material labour HOM complete as per specification. (P.No.271, I.No.37.59.2 of PW, P&IWTD S.R 2018-19)								
	For RCC Drain	Cum							
	Bottom slab								
	Ambhabhavani Layout								
	1st main, LHS		1	71.00	0.90	0.15	9.59		
	1st main, RHS		1	106.00	0.90	0.15	14.31		
	8th cross, LHS		1	189.00	0.90	0.15	25.52		
	8th cross, RHS		1	180.00	0.90	0.15	24.30		
	8th cross to 1st main		2	27.00	0.90	0.15	7.29		
	Cross Rd		1	160.00	0.90	0.15	21.60		
	side walls								
	Ambhabhavani Layout								
	1st main, LHS		2	71.00	0.15	0.70	14.91		
	1st main, RHS		2	106.00	0.15	0.70	22.26		
	8th cross, LHS		2	189.00	0.15	0.60	34.02		
	8th cross, RHS		2	180.00	0.15	0.60	32.40		
	8th cross to 1st main		4	27.00	0.15	0.60	9.72		
	Cross Rd		2	160.00	0.15	0.60	28.80		
	Culvert raft		8	6.30	1.20	0.20	12.10		
	Culvert wall		16	6.30	0.23	0.60	13.91		
							270.72		
					Net Qty.		**270.72**	7070.20	**1914019.09**
	Basic Rate Rs.=	6670.00							
	Add 6% A.W Rs. =	400.20							
	Total Rate Rs. =	**7070.20**							
4	KSRRB - M2300-14: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.MORTH Specification No. 1600 & 2200 for TMT bars Fe 500. (P.No.239, I.No.29.29.2 of PW, P&IWTD S.R 2018-19)								
	Considering steel For Drain @ 60 kg / cum	Tonne		244.71	0.060	--	14.68		
	Considering steel For culvert @ 90 kg / cum	Tonne		26.01	0.090	--	2.34		
							17.02	73992.24	**1259582.92**
	Basic Rate Rs.=	69804.00							
	Add 6% A.W Rs. =	4188.24							
	Total Rate Rs. =	**73992.24**							

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
5	Providing and fixing RCC precast cover slab of 100mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	For drain cover slab	Sqm							
	Ambhabhavani Layout								
	1st main, LHS		1	71.00	0.90	--	63.90		
	1st main, RHS		1	106.00	0.90	--	95.40		
	8th cross, LHS		1	189.00	0.90	--	170.10		
	8th cross, RHS		1	180.00	0.90	--	162.00		
	8th cross to 1st main		2	27.00	0.90	--	48.60		
	Cross Rd		1	154.00	0.90	--	138.60		
							678.60	2337.00	**1585888.20**
	Data Rate Rs. =	2337							
6	Providing and fixing RCC precast cover slab of 250mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
		Sqm							
	Ambhabhavani Layout								
	Culvert		8	6.30	1.20	--	60.48		
							60.48	5418.00	**327680.64**
	Data Rate Rs. =	5418							
7	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. As per the direction of Engineer incharge. (P.No.27, I.No.5.30 of PW, P&IWTD SR 2018-19)								
		Nos							
	Ambhabhavani Layout								
	1st main, LHS		1	271.00			271.00		
	1st main, RHS		1	306.00			306.00		
							577.00		
							1282.00		
							1282.00	432.48	**554439.36**
	Basic Rate Rs.=	408.00							
	Add 6% A.W Rs. =	24.48							
	Total Rate Rs. =	**432.48**							
8	Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Specification No. KSRRB M800-6. (P.No.180, I.No.24.1 of PW, P&IWTD SR 2018-19)								
	For Drain	Sqm							
	Ambhabhavani Layout								
	1st main, LHS		1	271.00	0.30		81.30		
	1st main, RHS		1	306.00	0.30		91.80		
							173.10	84.80	**14678.88**
	Basic Rate Rs.=	80.00							
	Add 6% A.W Rs. =	4.80							
	Total Rate Rs. =	**84.80**							

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
							Sub Total 1 Rs.		6636872.75
	Add GST @ 12%								796424.73
	PMC Charges								66368.73
							Sub Total 2 Rs.		7499666.21
	Miscellaneous & Rounding off								333.79
								Total Rs.	7500000.00

CERTIFICATE:

1 The work spot has been inspected by me and the work is found to be necessary.

2 The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, issue rates dated 21-10-2019 and Data Rates

3 The Provisions made in the estimate are quite necessary and adequate.

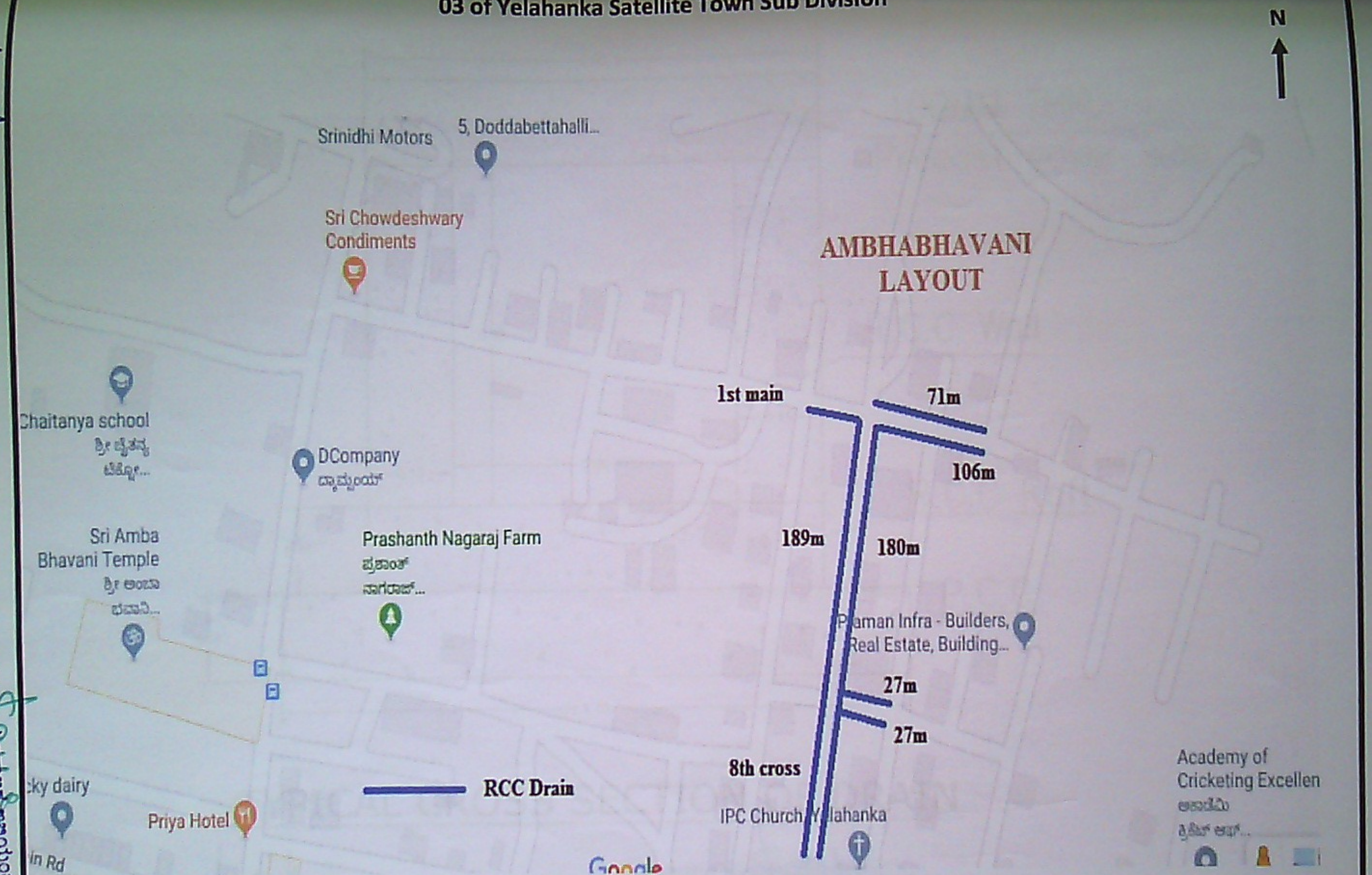
4 The area comes with in the BBMP limits.

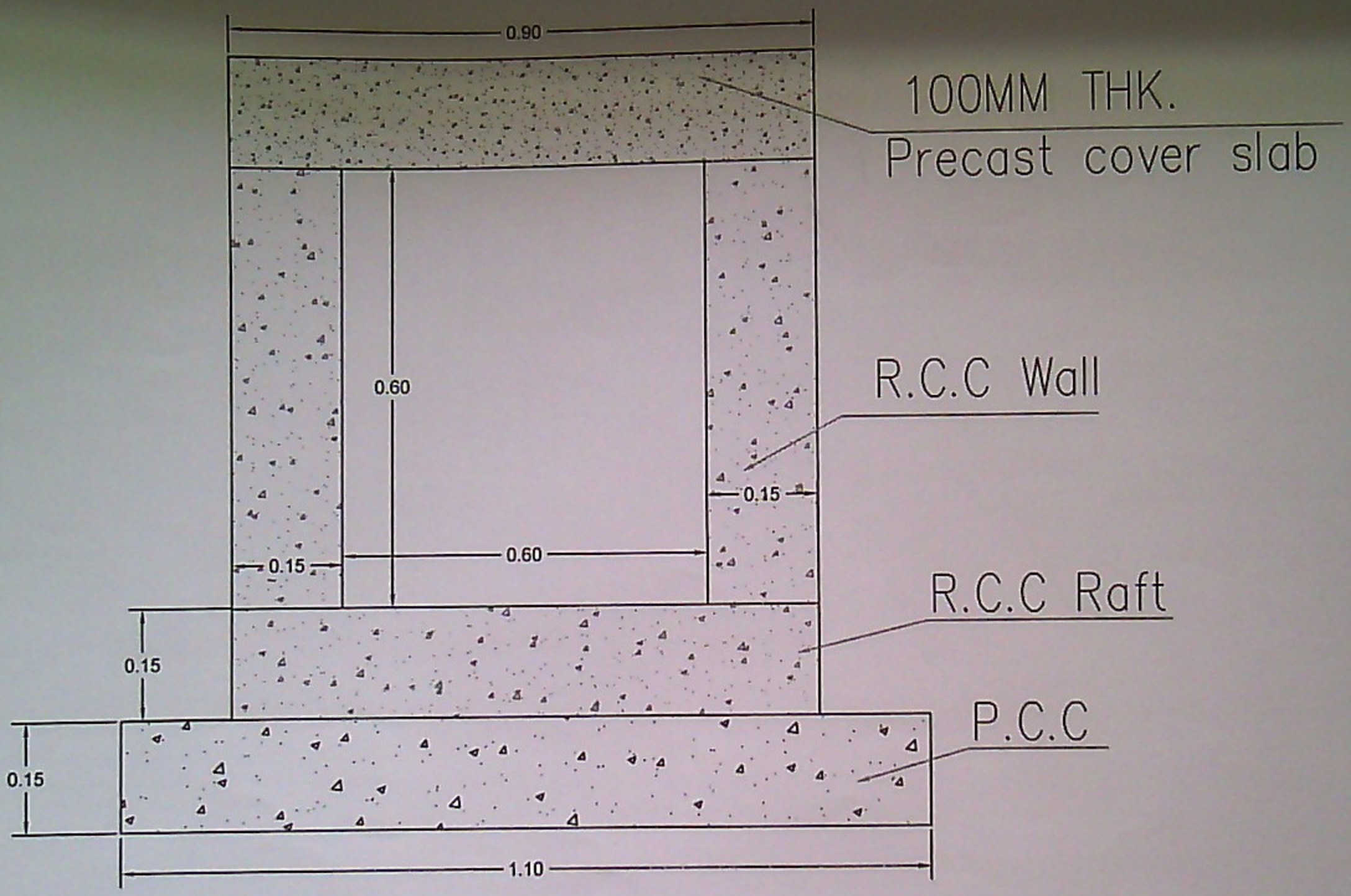
Assistant Engineer
Ward 03
BBMP

Assistant Executive Engineer
Yelahanka Satellite Sub Division
BBMP

Executive Engineer
Yelahanka Division
BBMP

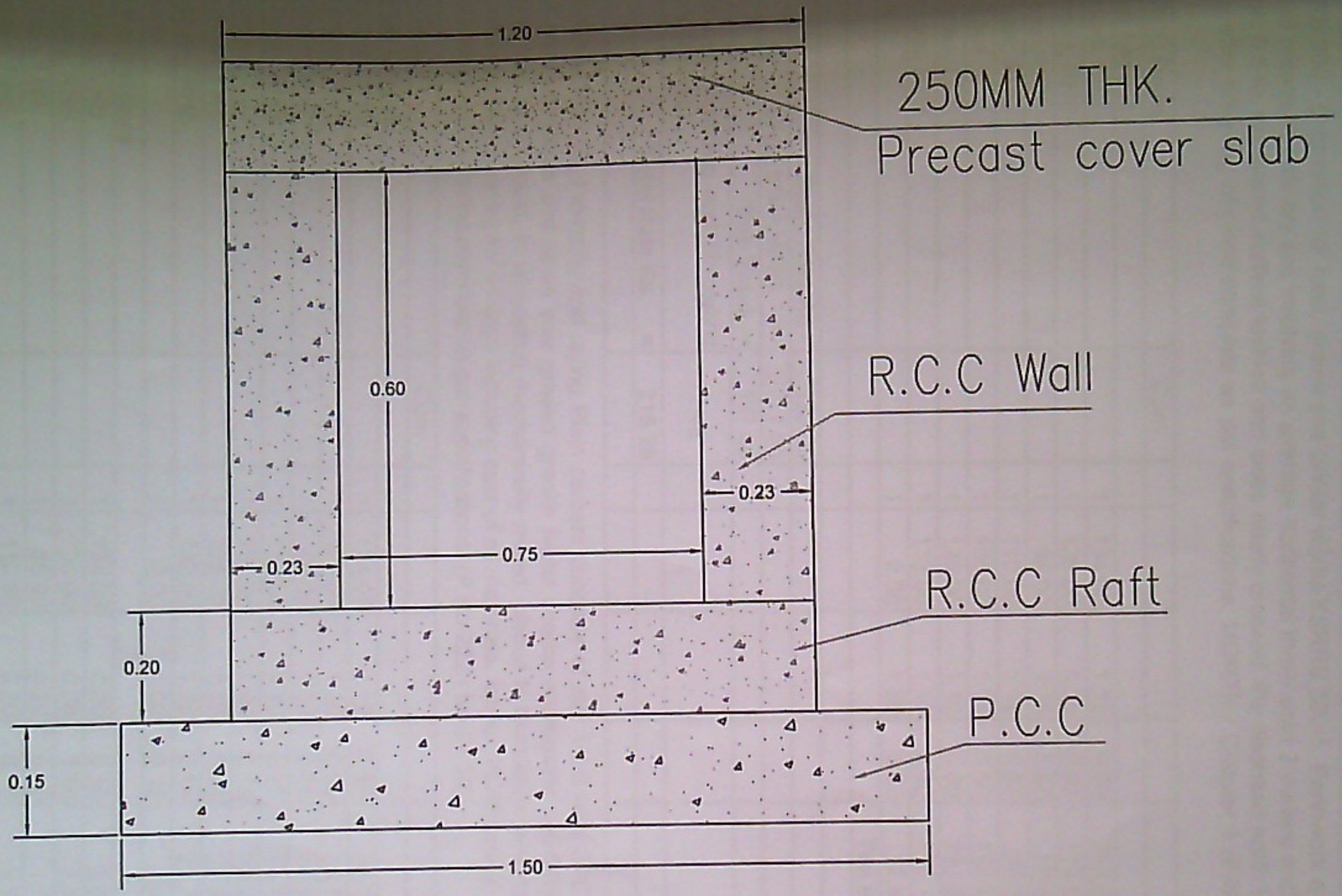
Name of Work: Construction of RCC Drain and culverts balance main and cross roads of Ambhabhavani layout in ward no-03 of Yelahanka Satellite Town Sub Division





TYPICAL CROSS SECTION OF DRAIN

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106



TYPICAL CROSS SECTION OF CULVERT

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-೫೬

AE-3

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Construction of RCC Drain and culverts balance main and cross roads of Maruthi layout in ward no-03 of Yelahanka Satellite TownSub Division

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
1	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No-143, I.No-19.1)								
	For RCC Drain	Cum							
	Maruti Layout								
	1st cross, LHS		1	134.00	1.10	0.80	117.92		
	1st cross, RHS		1	126.00	1.10	0.80	110.88		
	1st main, LHS		1	88.00	1.10	0.80	77.44		
	1st main, RHS		1	110.00	1.10	0.80	96.80		
	3rd cross		1	135.00	1.10	0.80	118.80		
	4th cross, LHS		1	125.00	1.10	0.80	110.00		
	4th cross, RHS		1	132.00	1.10	0.80	116.16		
	Culvert		1	9.00	1.80	0.80	12.96		
							760.96	215.28	**163819.47**
	Basic Rate Rs.=	130.00							
	Add 6% A.W Rs. =	7.80							
	Sub Total =	137.80							
	8Km Lead, Loading and Unloading =(2*1.28*8)+57	77.48							
	Total Rate Rs. =	**215.28**							
2	KSRRB M2100-10. Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. (P.No-222,I No-27.18)								
	For Drain	Cum							
	Maruti Layout								
	1st cross, LHS		1	134.00	1.10	0.15	22.11		
	1st cross, RHS		1	126.00	1.10	0.15	20.79		
	1st main, LHS		1	88.00	1.10	0.15	14.52		
	1st main, RHS		1	110.00	1.10	0.15	18.15		
	3rd cross		1	135.00	1.10	0.15	22.28		
	4th cross, LHS		1	125.00	1.10	0.15	20.63		
	4th cross, RHS		1	132.00	1.10	0.15	21.78		
	Culvert		1	9.00	1.50	0.15	2.03		
	For Kerb stones								
	1st cross, LHS		1	134.00	0.20	0.10	2.68		
	1st cross, RHS		1	126.00	0.20	0.10	2.52		
	1st main, LHS		1	88.00	0.20	0.10	1.76		
	1st main, RHS		1	110.00	0.20	0.10	2.20		
							151.44	5421.90	**821065.43**
	Basic Rate Rs.=	5115.00							
	Add 6% A.W Rs. =	306.90							
	Total Rate Rs. =	**5421.90**							

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
3	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. With 20mm and sown size granite metal course aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compcted for walls and bottom including centring shuttering cost of material HOM of machinary curing etc., complete execluding cost of steel as per MORTH specification no. 1500, 1700, 2200 including cost of material labour HOM complete as per specification. (P.No.271, I.No.37.59.2 of PW, P&IWTD S.R 2018-19)								
	For RCC Drain	Cum							
	Bottom slab								
	Maruti Layout								
	1st cross, LHS		1	134.00	0.90	0.15	18.09		
	1st cross, RHS		1	126.00	0.90	0.15	17.01		
	1st main, LHS		1	88.00	0.90	0.15	11.88		
	1st main, RHS		1	110.00	0.90	0.15	14.85		
	3rd cross		1	135.00	0.90	0.15	18.23		
	4th cross, LHS		1	125.00	0.90	0.15	16.88		
	4th cross, RHS		1	132.00	0.90	0.15	17.82		
	side walls								
	Maruti Layout								
	1st cross, LHS		2	134.00	0.15	0.70	28.14		
	1st cross, RHS		2	126.00	0.15	0.70	26.46		
	1st main, LHS		2	88.00	0.15	0.70	18.48		
	1st main, RHS		2	110.00	0.15	0.70	23.10		
	3rd cross		2	135.00	0.15	0.65	26.33		
	4th cross, LHS		2	125.00	0.15	0.65	24.38		
	4th cross, RHS		2	132.00	0.15	0.65	25.74		
	Culvert raft		1	9.00	1.20	0.20	2.16		
	Culvert wall		2	9.00	0.23	0.60	2.48		
							292.01		
					Net Qty.		**292.01**	7070.20	**2064597.38**
	Basic Rate Rs.=	6670.00							
	Add 6% A.W Rs. =	400.20							
	Total Rate Rs. =	**7070.20**							
4	KSRRB - M2300-14: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.MORTH Specification No. 1600 & 2200 for TMT bars Fe 500. (P.No.239, I.No.29.29.2 of PW, P&IWTD S.R 2018-19)								
	Considering steel For Drain @ 60 kg / cum	Tonne		287.37	0.060	--	17.24		
	Considering steel For culvert @ 90 kg / cum	Tonne		4.64	0.090	--	0.42		
							17.66	73992.24	**1306714.80**
	Basic Rate Rs.=	69804.00							
	Add 6% A.W Rs. =	4188.24							
	Total Rate Rs. =	**73992.24**							
5	Providing and fixing RCC precast cover slab of 100mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
	For drain cover slab	Sqm							
	Maruti Layout								
	1st cross, LHS		1	134.00	0.90	--	120.60		
	1st cross, RHS		1	126.00	0.90	--	113.40		
	1st main, LHS		1	88.00	0.90	--	79.20		
	1st main, RHS		1	110.00	0.90	--	99.00		
	3rd cross		1	135.00	0.90	--	121.50		
	4th cross, LHS		1	125.00	0.90	--	112.50		
	4th cross, RHS		1	124.00	0.90	--	111.60		
							757.80	2337.00	**1770978.60**
	Data Rate Rs. =	2337							
6	Providing and fixing RCC precast cover slab of 250mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
		Sqm							
	Maruti Layout								
	Culvert		1	9.00	1.20	--	10.80		
							10.80	5418.00	**58514.40**
	Data Rate Rs. =	5418							
7	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. As per the direction of Engineer incharge. (P.No.27, I.No.5.30 of PW, P&IWTD SR 2018-19)								
		Nos							
	Maruti Layout								
	1st cross, LHS		1	134.00			134.00		
	1st cross, RHS		1	126.00			126.00		
	1st main, LHS		1	88.00			88.00		
	1st main, RHS		1	109.00			109.00		
							457.00		
							1016.00		
							1016.00	432.48	**439399.68**
	Basic Rate Rs.=	408.00							
	Add 6% A.W Rs. =	24.48							
	Total Rate Rs. =	**432.48**							
8	Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Specification No. KSRRB M800-6. (P.No.180, I.No.24.1 of PW, P&IWTD SR 2018-19)								
	For Drain	Sqm							
	Maruti Layout								
	1st cross, LHS		1	134.00	0.30		40.20		
	1st cross, RHS		1	126.00	0.30		37.80		
	1st main, LHS		1	88.00	0.30		26.40		
	1st main, RHS		1	109.00	0.30		32.70		
							137.10	84.80	**11626.08**
	Basic Rate Rs.=	80.00							
	Add 6% A.W Rs. =	4.80							
	Total Rate Rs. =	**84.80**							

Description of work	Unit	No	Length	Breadth	Depth	Quantity	Rate	Amount
			m	m	m		in Rs	in Rs
						Sub Total 1 Rs.		6636715.84
Add GST @ 12%								796405.90
PMC Charges								66367.16
						Sub Total 2 Rs.		7499488.89
Miscellaneous & Rounding off								511.11
							Total Rs.	7500000.00

CERTIFICATE:

1 The work spot has been inspected by me and the work is found to be necessary.

2 The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, issue rates dated 21-10-201 9and Data Rates

3 The Provisions made in the estimate are quite necessary and adequate.

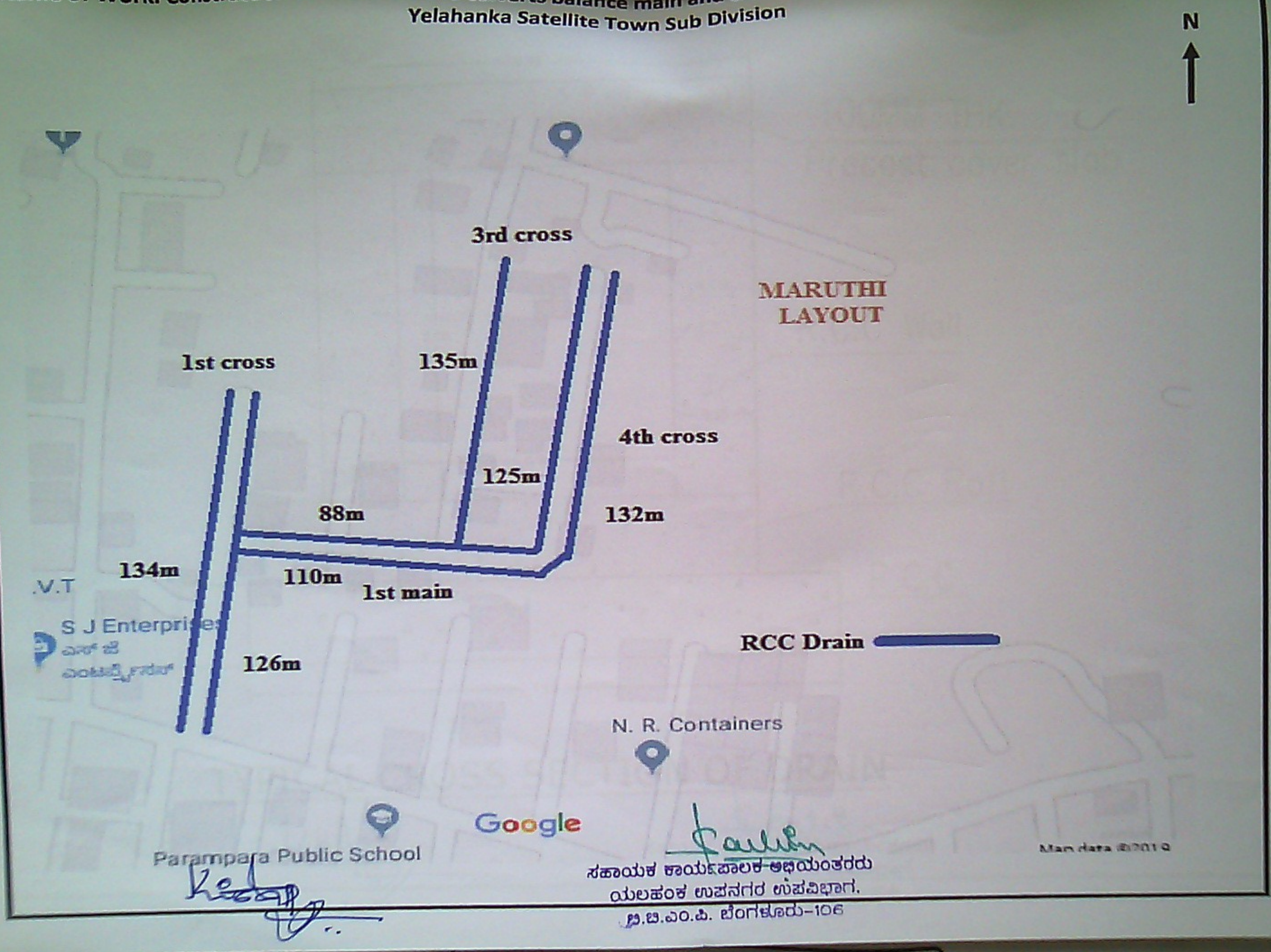
4 The area comes with in the BBMP limits.

Assistant Engineer
Ward 03
BBMP

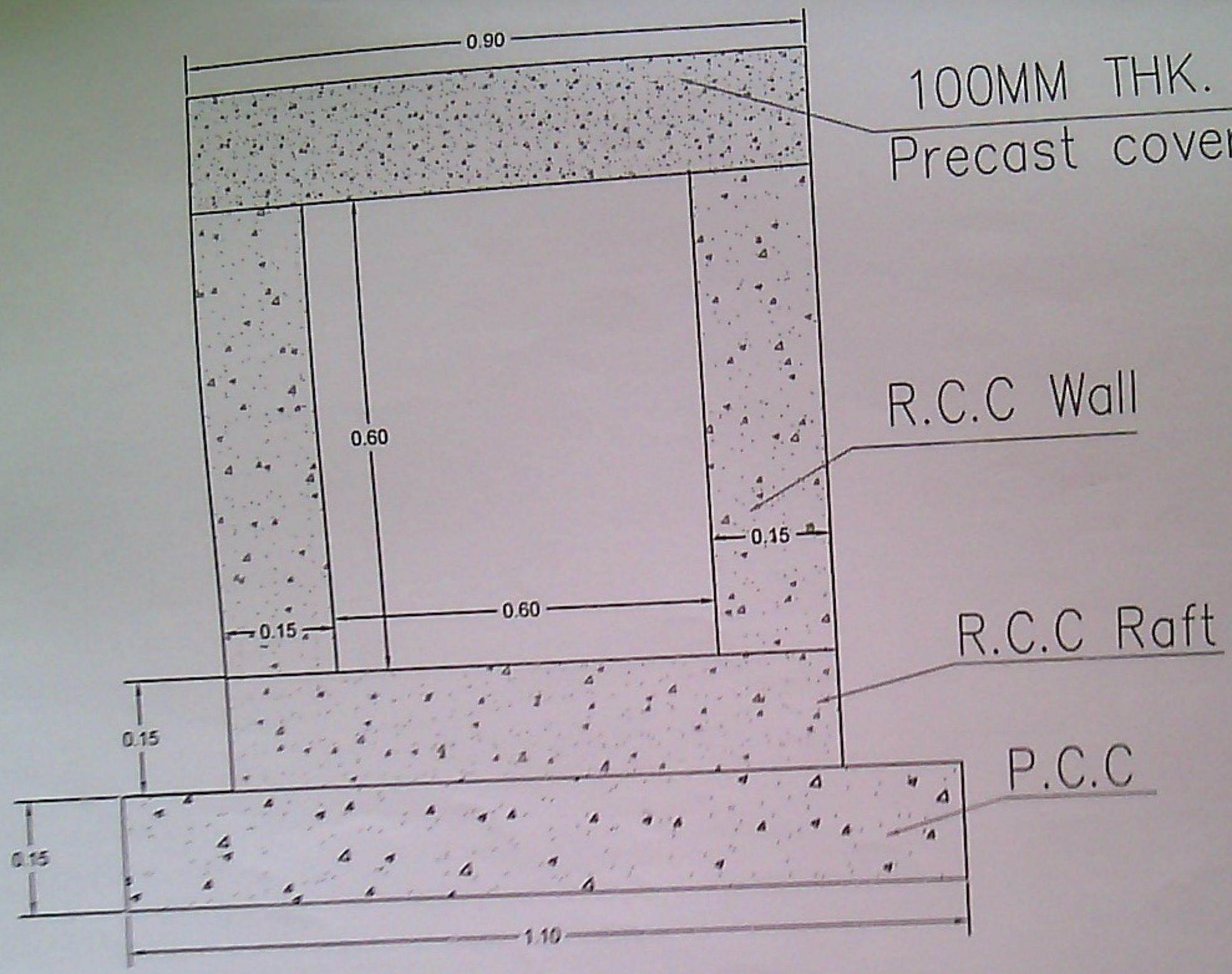
Assistant Executive Engineer
Yelahanka Satellite Sub Division
BBMP

Executive Engineer
Yelahanka Division
BBMP

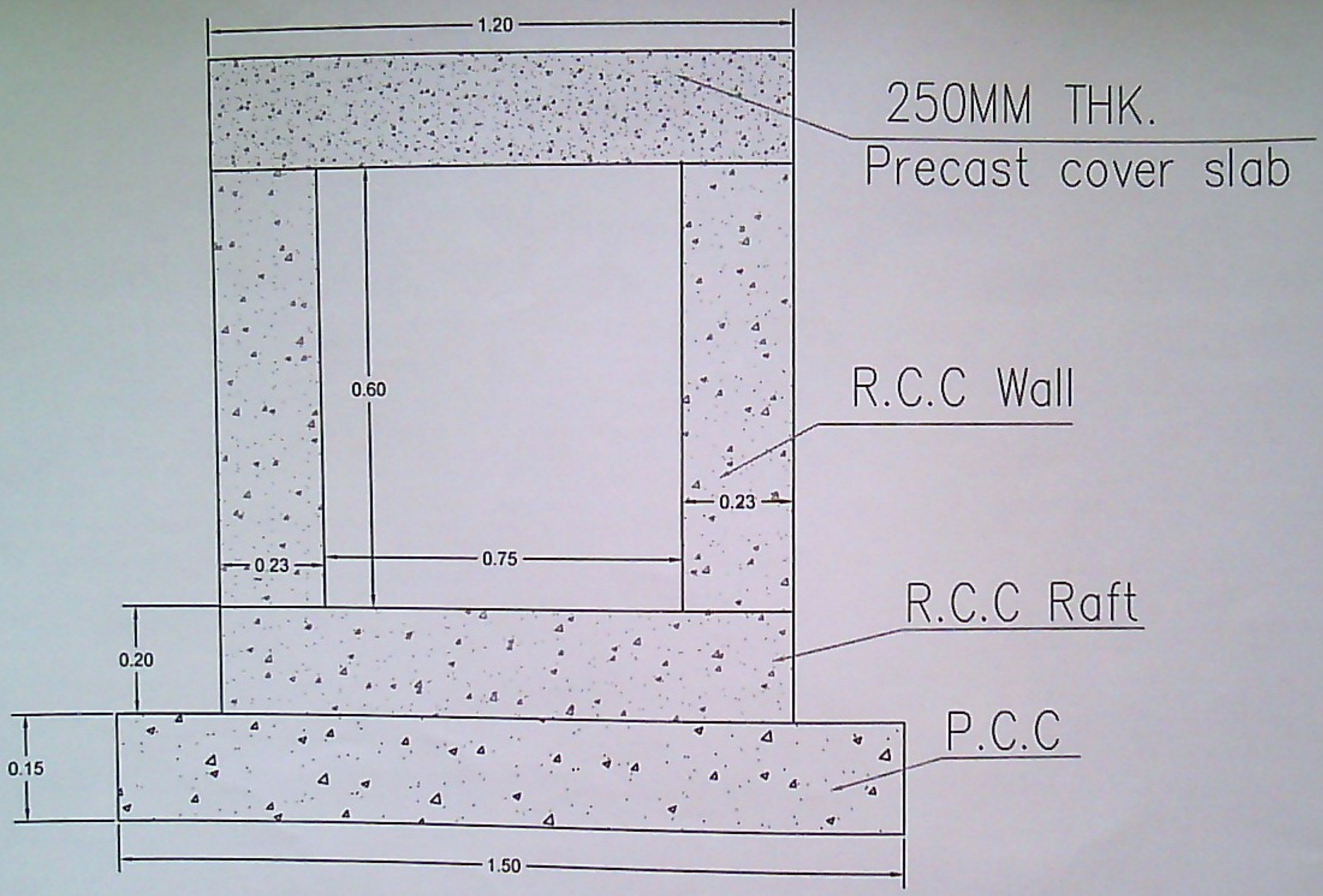
Name of Work: Construction of RCC Drain and culverts balance main and cross roads of Maruthi layout in ward no-03 of Yelahanka Satellite Town Sub Division



ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ.
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106



TYPICAL CROSS SECTION OF DRAIN



TYPICAL CROSS SECTION OF CULVERT

AE-3

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-೧೦೬